(a) when the BET specific surface area of the graphite material is represented by y (m^2/g) and the particle size by x (μm), the graphite material satisfies the following formula (II):

$$[y \leq 42x^{-0.6} \ (4 \leq x \leq 30, \ 0.1 \leq y \leq 20)]$$

$$y \leq Cx^{-0.6} \ (C=42 \ m^2/(g \cdot \mu m^{-0.6}), \ 4 \leq x \leq 30, \ 0.1 \leq y \leq 20) \qquad \text{(II)}$$

(b) in Raman spectroscopic analysis using argon ion laser light with a wavelength of 5,145 Å, the ration of the strength of the peak existing in the region of 1,350-1,370 cm^{-1} (IB) to the strength of the peak existing in the region of 1,570-1620 cm^{-1} (IA), which is represented by an R value (IB/IA), is 0.001 to 0.2.

Please cancel claim 4.

Please add the following claims:

Claim 9. A lithium ion secondary battery comprising a positive electrode, a non-aqueous electrolyte, a separator, and a negative electrode comprising a carbon material capable of charging and discharging lithium ions.

said carbon material comprising an amorphous carbon-coated graphitic carbonaceous material prepared by coating the particle surfaces of a graphite material with a carbonizable organic material, calcining and pulverizing the coated graphite material

said graphite material satisfying the following conditions (a) and (b):

(a) when the BET specific surface area of the graphite material is represented by y (m^2/g) and the particle size by x (μm), the graphite material satisfies the following formula (II):

$$y \leq Cx^{-0.6} \ (C=42 \ m^2/(g \cdot \mu m^{-0.6}), \ 4 \leq x \leq 30, \ 0.1 \leq y \leq 20) \qquad \text{(II)}$$

(b) in Raman spectroscopic analysis using argon ion laser light with a wavelength of 5,145 Å, the ration of the strength of the peak existing in the region of 1,350-1,370 cm^{-1} (IB) to the strength of the peak existing in the region of 1,570-1620 cm^{-1} (IA), which is represented by an R value (IB/IA), is 0.001 to 0.2.

Claim 10

C2

A lithium ion secondary battery according to Claim 9, wherein the graphite material satisfies the following condition (c):

(c) in Raman spectroscopic analysis using argon ion laser light with a wavelength of 5,145 Å, the half-value width of the peak existing at 1,570-1620 cm^{-1}, which is represented by a Δv value, is 14 to 22.

REMARKS

A Continued Prosecution Application (CPA) Request Transmittal was filed on November 17, 2000. Claims 1, 3 and 4 are currently pending in the subject application.

Claim 1 is amended, claim 4 is canceled, and claims 9 and 10 are added in the instant preliminary amendment. The Applicant requests that the Examiner enter the instant preliminary amendment to the claims. The amendments to the claims merely resolve the units issues which had been raised by the Examiner. No new matter has been added.

The Applicants surprisingly found that lithium ion batteries prepared with graphitic negative electrodes comprising a graphite of the present invention results in increased capacity at 5.6 mA/cm^2 of about 130 % for Example 10 (Table 3, page 35 of the specification as filed) and about 140 % in Example 11, as well as significant increases in capacity at 2.8 mA/cm^2, in doping capacity and in undoping capacity.

Applicants note that the equation in formula (II) and the equation $y = 52x^{(-0.6)}$ defining the prior art graphites such as LONZA KS graphites were determined by a least squares analysis of the average particle size and BET specific surface area of the corresponding graphite materials as is well know in the art for defining a mathematical relationship between two variables. The coefficient $C = 42\ m^2/(g \cdot \mu m^{(-0.6)})$ in formula (II) was selected for the inequality $y \leq Cx^{(-0.6)}$ such that prior art graphite materials such as